



# MBR10100L

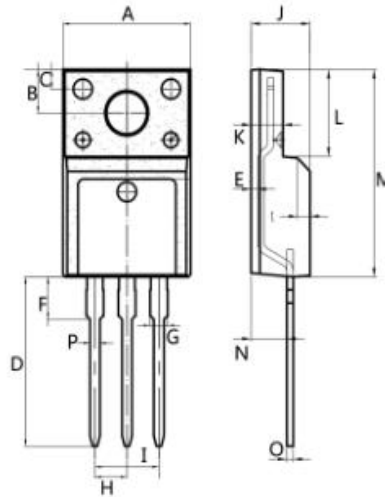
## Low VF Schottky Barrier Rectifiers

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Lead free in comply with EU RoHS

### MECHANICAL DATA

- Case: ITO-220AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-202, Method 208
- Polarity: As marked.
- Mounting Position: Any



### ITO-220AB

Dim.	Min.	Max.
A	9.95	10.25
B	2.95	3.25
C	1.25	1.45
D	12.95	13.25
E	0.50	0.65
F	3.1	3.3
G	1.30	1.45
H	Typ 2.54	
I	Typ 5.08	
J	4.60	4.75
K	2.50	2.65
L	6.35	6.55
M	15.4	16.0
N	2.75	3.05
O	0.48	0.52
P	0.76	0.84

All Dimensions in millimeter

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

Characteristics	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RWM}$	100	V
Maximum DC Blocking Voltage	$V_{DC}$	100	V
Maximum Average Forward Rectified Current	Per Leg	5	A
	Total	10	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave	$I_{FSM}$	80	A
Operating Temperature Range	$T_J$	-50 to +150	°C
Storage Temperature Range	$T_{STG}$	-50 to +150	°C
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	4	°C/W

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.



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### ELECTRICAL CHARACTERISTICS(T<sub>A</sub>=25°C unless otherwise noted)

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V <sub>F</sub>	Typ.	Max.	V
at I <sub>F</sub> =1A	TA=25°C		0.45	-	
	TA=125°C		0.36	-	
at I <sub>F</sub> =2A	TA=25°C		0.51	-	
	TA=125°C		0.46	-	
at I <sub>F</sub> =5A	TA=25°C		0.67	0.72	
	TA=125°C	0.62	-		
Maximum Reverse Current at V <sub>R</sub> =100V	TA=25°C	I <sub>R</sub>	5	30	μA
	TA=125°C		3	-	mA

Note2:Pulse test: 300 μs pulse width, 1 % duty cycle

### RATING AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

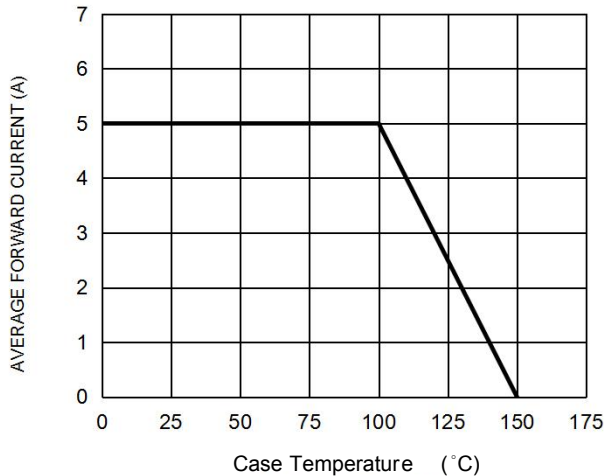


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

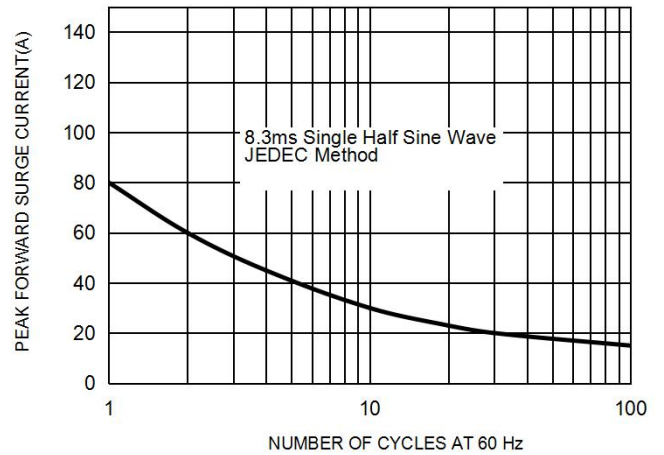


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

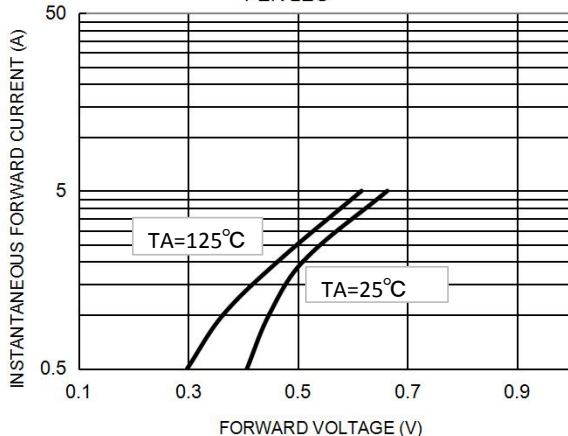


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

